

## MATERIAL SAFETY DATA SHEET

PRODUCT: HBE-95-SG Cure  
 REVISION DATE: September 21<sup>st</sup> 2006

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### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**MANUFACTURER/SUPPLIER:** CANUSA-CPS, A DIVISION OF SHAWCOR LTD.  
**ADDRESS:** 25 BETHRIDGE ROAD  
**CITY, PROVINCE/STATE:** TORONTO, ONTARIO  
**POSTAL CODE:** M9W 1M7  
**EMERGENCY PHONE NUMBER:** (613) 996-6666 (CANUTEC)  
**INFORMATION NUMBER:** (416) 743-7111

**PRODUCT IDENTITY** **HBE-95-SG Cure**  
 (AS USED ON LABEL AND LIST):  
**PRODUCT USE:** Curing Agent for HBE-95-SG Base Coating for Pipelines  
**PRODUCT I.D. NUMBER (PIN):** N/A

### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS #</u>	<u>%</u>	<u>HAZARD SYMBOLS</u>	<u>RISK PHRASES</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE)BIS-	80-05-7	15-40	X <sub>i</sub>	R: 36/37/38-43
1-(2-,AMINOETHYL) PIPERAZINE (AEP)	140-31-8	15-40	X <sub>n</sub> , C	R: 21/22-34-43-52/53
NONYL PHENOL	25154-52-3	15-40	X <sub>n</sub> , C, N	R: 22-34-50/53
BENZYL ALCOHOL	100-51-6	5-10	X <sub>n</sub>	R: 20/22
POLYETHYLENEPOLYAMINES	29320-38-5	1-5	NONE KNOWN	NONE KNOWN
BENZYLDIMETHYLAMINE	103-83-3	1-5	X <sub>n</sub> , C	R: 10-20/21/22-34-52/53
1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXSILYL)PROPYL-	1760-24-3	1-5	NONE KNOWN	NONE KNOWN
TETRAETHYLENE POLYAMINES	112-57-2	0.1-1	X <sub>n</sub> , C, N	R: 21/22-34-43-51/53

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## SECTION 3 - HAZARDS IDENTIFICATION

### ADVERSE HEALTH EFFECTS:

ADVERSE EYE, SKIN AND RESPIRATORY EFFECTS. SENSITIZATION MAY OCCUR WITH PROLONGED SKIN CONTACT.

### ENVIRONMENTAL EFFECTS:

NOT AVAILABLE

### PHYSICAL AND CHEMICAL HAZARDS:

THERMAL DECOMPOSITION MAY CAUSE THE RELEASE OF TOXIC, IRRITATING AND FLAMMABLE PRODUCTS, OXIDES OF NITROGEN, CARBON (CO, CO<sub>2</sub>), CARBOXYLIC ACIDS, ALDEHYDES.

### SPECIFIC HAZARDS:

NOT AVAILABLE

### CARCINOGENICITY INFORMATION:

NOT AVAILABLE

## SECTION 4 - FIRST-AID MEASURES

### EYE CONTACT:

FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.

### SKIN CONTACT:

WASH WITH SOAP AND WATER FOR 15 MINUTES; REMOVE CONTAMINATED CLOTHING. SEEK MEDICAL ATTENTION.

### INHALATION:

REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, A TRAINED PERSON SHOULD PERFORM ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION.

### INGESTION:

SEEK **IMMEDIATE** MEDICAL ATTENTION. DO NOT INDUCE VOMITING.

### NOTE TO PHYSICIAN:

NOT AVAILABLE

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## SECTION 5 - FIRE-FIGHTING MEASURES

### SUITABLE EXTINGUISHING MEDIA:

WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE

### FIRE-FIGHTING HAZARDS:

NOT AVAILABLE

### FIRE-FIGHTING PERSONAL PROTECTIVE EQUIPMENT:

USE SELF CONTAINED BREATHING APPARATUS DURING FIREFIGHTING

### FIRE-FIGHTING PROCEDURES:

NOT AVAILABLE

### THERMAL DECOMPOSITION BY-PRODUCTS:

THERMAL DECOMPOSITION MAY CAUSE THE RELEASE OF TOXIC, IRRITATING AND FLAMMABLE PRODUCTS, OXIDES OF NITROGEN, CARBON (CO, CO<sub>2</sub>), CARBOXYLIC ACIDS, ALDEHYDES.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS:

REMOVE ALL SOURCES OF IGNITION. WEAR APPROPRIATE SAFETY EQUIPMENT.

### ENVIRONMENTAL PRECAUTIONS:

PREVENT RUN-OFF FROM REACHING STORM OR SEWER DRAINS.

### METHODS FOR CLEANING UP:

SOAK UP SPILLS WITH INERT ABSORBENT MATERIALS AND PLACE IN CLOSED CONTAINERS. DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, PROVINCIAL AND MUNICIPAL LEGISLATION.

## SECTION 7 - HANDLING AND STORAGE

### HANDLING REQUIREMENTS:

MAINTAIN GOOD PERSONAL HYGIENE. ALL EQUIPMENT MUST BE GROUNDED.

### STORAGE REQUIREMENTS:

COOL DRY ENVIRONMENT AWAY FROM INCOMPATIBLE MATERIALS AND ALL SOURCES OF IGNITION.

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## INCOMPATIBLE MATERIALS:

STRONG ACIDS, OXIDIZERS (PERCHLORATES, NITRATES)

## VENTILATION:

ADEQUATE GENERAL VENTILATION IS RECOMMENDED

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS:

ADEQUATE GENERAL VENTILATION IS RECOMMENDED

### PERSONAL PROTECTIVE EQUIPMENT (PPE):

GLOVES/TYPE: CHEMICAL RESISTANT GLOVES WHEN HANDLING MATERIAL.  
RESPIRATORY/TYPE: WEAR A NIOSH APPROVED RESPIRATOR DURING APPLICATION AND HANDLING WHERE VAPOUR/MIST IS ENCOUNTERED IN THE BREATHING ZONE. AFTER APPLICATION AND DRYING, WEAR A DUST RESPIRATOR FOR ANY SANDING, GRINDING TYPE ACTIVITIES.  
EYE/TYPE: SPLASH PROOF CHEMICAL SAFETY GOGGLES  
FOOTWEAR: IMPERVIOUS BOOTS  
CLOTHING: CHEMICAL RESISTANT APRON, COVER EXPOSED SKIN.

### INGREDIENT EXPOSURE DATA:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>LD<sub>50</sub> (species and route)</u>	<u>LC<sub>50</sub> (species and route)</u>	<u>OSHA (PEL) TWA</u>	<u>ACGIH (TLV) TWA</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE) BIS-	80-05-7	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
1-(2-,AMINOETHYL) PIPERAZINE (AEP)	140-31-8	Rat, Oral: 2140 mg/kg Rat, Dermal: 880 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
NONYL PHENOL	25154-52-3	Mouse, Oral: 1231 mg/kg Rabbit, Dermal: 2140 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
BENZYL ALCOHOL	100-51-6	Rat, Oral: 1230 mg/kg Rabbit, Dermal: 2000 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE

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POLYETHYLENE POLYAMINES	29320-38-5	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
BENZYLDIMETHYL AMINE	103-83-3	Rat, Oral: 265 mg/kg Rabbit, Dermal: 1660 mg/kg	Mouse, 2H: 1800 mg/m <sup>3</sup>	NOT AVAILABLE	NOT AVAILABLE
1,2-ETHANEDIAMINE, N-(3- (TRIMETHOXSILYL) PROPYL-	1760-24-3	Rat, Oral: 7460 mg/kg	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
TETRAETHYLENE POLYAMINES	112-57-2	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL DATA:

PHYSICAL STATE:	LIQUID
FORM:	MODERATELY VISCOUS
COLOUR:	AMBER
ODOUR:	AMMONIACAL
ODOUR THRESHOLD (PPM):	NOT AVAILABLE
BOILING POINT:	NOT AVAILABLE
FREEZING POINT:	NOT AVAILABLE
MELTING POINT:	NOT AVAILABLE
EVAPORATION RATE:	NOT AVAILABLE
VAPOUR PRESSURE (mmHg):	NOT AVAILABLE
VAPOUR DENSITY (AIR = 1):	NOT AVAILABLE
pH:	NOT AVAILABLE
SPECIFIC GRAVITY (WATER = 1):	1.048
COEFFICIENT OF WATER/OIL DISTRIBUTION:	NOT AVAILABLE
SOLUBILITY IN WATER:	NOT AVAILABLE

## SECTION 10 - STABILITY AND REACTIVITY

### CONDITIONS TO AVOID:

ELEVATED TEMPERATURES

### MATERIALS TO AVOID:

STRONG ACIDS, OXIDIZERS (PERCHLORATES, NITRATES)

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## STABILITY AND REACTIVITY DATA:

STABILITY:	UNSTABLE: _____	STABLE: _____
HAZARDOUS POLYMERIZATION:	WILL OCCUR: _____	WILL NOT OCCUR: _____

## FLAMMABILITY DATA:

DECOMPOSITION TEMPERATURE:	NOT AVAILABLE
FLASHPOINT:	NOT AVAILABLE
AUTOIGNITION TEMPERATURE:	NOT AVAILABLE

## HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION MAY CAUSE THE RELEASE OF TOXIC, IRRITATING AND FLAMMABLE PRODUCTS, OXIDES OF NITROGEN, CARBON (CO, CO<sub>2</sub>), CARBOXYLIC ACIDS, ALDEHYDES.

## EXPLOSION DATA:

STATIC DISCHARGE:	NOT AVAILABLE
MECHANICAL IMPACT:	NOT AVAILABLE
LOWER EXPLOSIVE LIMIT, LEL (%):	NOT AVAILABLE
UPPER EXPLOSIVE LIMIT, UEL (%):	NOT AVAILABLE

## SECTION 11 - TOXICOLOGY INFORMATION

### EFFECTS FROM EYE CONTACT:

SEVERE IRRITANT. BURNS OF EYES MAY SEVERELY DAMAGE CONTACTED TISSUE AND PRODUCE SCARRING.

### EFFECTS FROM SKIN CONTACT:

CAUSES CHEMICAL BURNS. SEVERE IRRITANT. MAY CAUSE ALLERGIC SKIN REACTION

### EFFECTS FROM INHALATION:

SEVERE RESPIRATORY TRACT IRRITANT, MAY SEVERELY DAMAGE CONTACTED TISSUE AND PRODUCE SCARRING

### EFFECTS FROM INGESTION:

HARMFUL IF SWALLOWED. MAY CAUSE DEATH UNLESS TREATED PROMPTLY.

## TOXICOLOGICAL DATA:

EFFECTS OF ACUTE EXPOSURE:	SEE ABOVE
EFFECTS OF CHRONIC EXPOSURE:	ADVERSE EYE, SKIN AND RESPIRATORY EFFECTS. SENSITIZATION MAY OCCUR WITH PROLONGED SKIN CONTACT.
IRRITANCY OF MATERIAL:	SEE ACUTE EFFECTS
SENSITIZING CAPABILITY:	YES
CARCINOGENICITY OF MATERIAL:	NOT AVAILABLE
REPRODUCTIVE TOXICITY:	NOT AVAILABLE
TERATOGENICITY:	NOT AVAILABLE

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MUTAGENICITY: NOT AVAILABLE  
SYNERGISTIC MATERIALS: NOT AVAILABLE

## SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY DATA:  
NOT AVAILABLE

OTHER EFFECTS AND INFORMATION:  
NOT AVAILABLE

## SECTION 13 - DISPOSAL CONSIDERATIONS

PRODUCT AS SOLD:  
DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, PROVINCIAL AND MUNICIPAL LEGISLATION.

PRODUCT PACKAGING:  
DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, PROVINCIAL AND MUNICIPAL LEGISLATION.

SPECIAL INSTRUCTIONS:  
NOT AVAILABLE

## SECTION 14 - TRANSPORT INFORMATION

SHIPPING INFORMATION:  
SHIPPING NAME: HBE-95-SG Cure - AMINES, LIQUID, CORROSIVE, N.O.S.  
PIN/UN NUMBER: UN 2735  
PACKING GROUP: III  
TDG REGULATED: AMINES, LIQUID, CORROSIVE, N.O.S.  
DOT REGULATED: AMINES, LIQUID, CORROSIVE, N.O.S.  
IATA REGULATED: AMINES, LIQUID, CORROSIVE, N.O.S.

SPECIAL SHIPPING INSTRUCTIONS:  
NOT AVAILABLE

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## SECTION 15 - REGULATORY INFORMATION

### NOTE:

THE REGULATORY INFORMATION PROVIDED IS NOT INTENDED TO BE COMPREHENSIVE. OTHER LOCAL, STATE, PROVINCIAL, FEDERAL, INTERNATIONAL OR COUNTRY SPECIFIC REGULATIONS MAY APPLY TO THIS MATERIAL.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

### GENERAL MATERIAL INFORMATION:

WHMIS CLASSIFICATION: D1B, D2A, D2B, E

### COMPONENT ANALYSIS – LIST STATUS:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>CANADA WHMIS IDL</u>	<u>US CERCLA PRIORITY LIST</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE)BIS-	80-05-7	YES	NO
1-(2-AMINOETHYL)PIPERAZINE (AEP)	140-31-8	YES	NO
NONYL PHENOL	25154-52-3	YES	NO
BENZYL ALCOHOL	100-51-6	YES	NO
POLYETHYLENE POLYAMINES	29320-38-5	NO	NO
BENZYLDIMETHYL AMINE	103-83-3	YES	NO
1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXYSILYL)PROPYL-	1760-24-3	NO	NO
TETRAETHYLENE POLYAMINES	112-57-2	YES	NO



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## COMPONENT ANALYSIS – INVENTORY STATUS:

<u>INGREDIENT</u>	<u>CAS #</u>	<u>CANADA- DSL</u>	<u>US- TSCA</u>	<u>EU- EINECS</u>	<u>AUSTRALIA -AICS</u>
PHENOL, 4,4'-(1-METHYLETHYLIDENE) BIS-	80-05-7	YES	YES	YES, 201-245-8	YES
1-(2-,AMINOETHYL) PIPERAZINE (AEP)	140-31-8	YES	YES	YES, 205-411-0	YES
NONYL PHENOL	25154-52-3	YES	YES	YES, 246-672-0	YES
BENZYL ALCOHOL	100-51-6	YES	YES	YES, 202-859-9	YES
POLYETHYLENE POLYAMINES	29320-38-5	YES	YES	NO	YES
BENZYLDIMETHYL AMINE	103-83-3	YES	YES	YES, 203-149-1	YES
1,2-ETHANEDIAMINE, N-(3-(TRIMETHOXYSILYL) PROPYL-	1760-24-3	YES	YES	YES, 217-164-6	YES
TETRAETHYLENE POLYAMINES	112-57-2	YES	YES	YES, 203-986-2	YES

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## SECTION 16 - OTHER INFORMATION

PREPARED BY: SHAWCOR LTD.  
TELEPHONE NUMBER: (416) 743-7111  
DATE PREPARED: September 21<sup>st</sup> 2006

ADDITIONAL INFORMATION: NONE

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